



## SHIPPING AND PACKAGING GUIDELINES

*The following guidelines have been created by AERC to assist you in preparing your waste for shipment to our facility. Following these guidelines will help ensure that your waste is packaged safely for transit and receipt and allow for efficient handling at our facility. If you have any questions regarding these guidelines please contact the AERC Approvals Department.*

### GENERAL GUIDELINES FOR ALL WASTES

- All containers must be US DOT approved and properly labeled according to US EPA and US DOT regulations.
- All metal containers must include a drum liner. The drum liner must contain all of the material inside the drum and be at least 4 mm thick.
- All drummed bulk solutions must be shipped in a closed-head poly or poly-lined steel drum sealed with a bung.
- Follow US DOT weight limits for all containers.
- For lab pack wastes, inside containers must be of good integrity, sealed and not leaking. An absorbent must be used between the inside containers. Vermiculite and Speedi Dry are preferable. Do not use sawdust, corncob, Styrofoam peanuts or bubble wrap.
- Each inside container must be clearly labeled to indicate the contents.
- Each outside container must be labeled indicating:
  - Generator Information
  - AERC Approval Code (AERC PA requirement)
  - US DOT Hazard Class
  - Proper US DOT Shipping Name
  - US EPA Waste Code (if applicable)
  - Manifest or BOL Number and Date
  - Container Number
- A new profile is required to be completed if the chemical or physical characteristics of the waste to be shipped change in any way (AERC PA requires profiles).
- Unknowns, flammables, explosives, compressed gases, radio-actives, pyrophorics, infectious and medical wastes are not acceptable.
- AERC strives to accept all received wastes. However, off-specification charges will result if packaging protocols are not followed, especially in the case of leaking containers, incompatible packaging and unacceptable wastes.

## **METALWARE / GLASSWARE / DEBRIS**

- Acceptable wastes are varied and may include: barometers, thermometers, regulators, relays, switches, devices, thermostats, esophageal bougies, Miller Abbott Tubes, ignitron tubes and other glass and metalware.
- Device drains and portals must be plugged to prevent leakage of metallic mercury.
- Any free flowing mercury must be packed separately within the lab pack container.
- Organic debris (gloves, tyvek, plant scraps, paper and wood) may be packaged with metalware and glassware.
- Large, bulky devices must be packaged in a shipping container that is properly sealed to prevent leakage of metallic mercury. Wooden crates must meet US DOT requirements and be properly lined.
- Drum liners are required for all metal containers.

## **MERCURY SALTS AND COMPOUNDS LAB PACKS ONLY**

- Package lab pack material according to US DOT Hazard Class and chemical compatibility (i.e. acids separate from bases). See 49 CFR 173.12 for further guidance.
- Solid mercury compounds should not be mixed together in inside containers. Pack compounds in separate glass or plastic jars and lab pack them together in the same outer container.
- Inside containers must be 5-gallons or less in size and have screw cap closures. Corks, plugs, tape, etc. are not acceptable.
- Cyanides must be packed alone.
- Organic lab packs must contain a minimum of 5% or more organics.
- Each inside container must be clearly labeled to indicate the contents.
- A packing list must be sent to AERC Approvals Department seven days prior to shipment for review and final approval.
- A packing list of all inside container contents must accompany the shipping papers and relate to a container number placed on the outside shipping container. AERC recommends that a copy of the packing slip be placed on the outside container.
- See General Shipping and Packaging Guidelines for other requirements.

## **MERCURY SOLUTIONS LAB PACK AND DRUMMED WASTE**

- Do not pack acidic and caustic solutions or other incompatibles within the same outside shipping container, as incompatible chemicals will react violently if mixed. See 49 CFR 173.12 for further guidance.
- Inside containers must have screw cap closures. Corks, plugs, tape, etc. are not acceptable.
- Non-lab pack solutions must be profiled separately and packaged in poly or poly-lined steel drums.
- Each inside container must be clearly labeled to indicate the contents.
- A packing list must be sent to the AERC Approvals Department seven (7) days prior to shipment for review and final approval.
- A packing list of all inside container contents must accompany the shipping papers and relate to a container number placed on the outside shipping container. AERC recommends that a copy of the packing slip be placed on the outside container.
- COD, Nessler's Reagent and Mercuric Chloride solution vials should be packed in original container when possible. If original packaging is not available, place loose vials with vermiculite in a US DOT poly pail or in a lined metal drum.
- See General Shipping and Packaging Guidelines for other requirements.

## **METALLIC MERCURY**

- Elemental mercury may be packaged as a lab pack material or in steel flasks. Glass or plastic jars with screwtop lids are acceptable inner containers.
- Metallic mercury may be shipped via Fed-Ex ground services as a hazardous material if it is 99% pure or greater, and less than 50 pounds per package. To use this service, you must be certified as a hazardous material shipper by Fed-Ex ground.

## SOILS AND SLUDGES

- AERC does not issue generic approvals for soils and sludges. Each approval is wastestream specific and requires completion and approval of an AERC Recycling Profile.
- Soil and sludge wastestreams require samples and analytical testing prior to approval and shipment.
- Required analytical testing includes mercury content, volatile and semi-volatile organics and testing by AERC in its ARSST (Advanced Reactive Systems Screening Tool). (See also section on samples).
- General acceptable parameters for soils are:
  - Mercury: Any Quantity
  - Moisture: Less than 10%
  - Organics: Less than 500 ppm 40 CFR 261 Appendix VIII Organics will not require pretreatment.

*NOTE: If your wastestream falls outside these parameters, a case-by-case evaluation of acceptability will be conducted by AERC. Contact the AERC Approvals Department for details.*

- Package soils in drums or lined cubic yard boxes, ensuring that all liquids and mercury vapor are contained.
- Package sludge in lined drums ensuring that all liquids and mercury are contained.

## **COMPLETING THE WASTE INFORMATION PROFILE FORM (AERC PA ONLY)**

- *Generator Name and Manifest Address:* Must be specific to the site shipping the waste. (Contact your Account Representative to set up Generic Approvals for multiple locations).
- *Billing Address and Contact:* Must indicate the company and the address where the invoice should be directed.
- Complete all sections of the profile. If a section does not apply to your wastestream, "N/A" must be indicated.
- Volumes and Quantities must be indicated in the appropriate sections.
- All RCRA contaminants must be specific and detailed in the Chemical Composition section.
- Any organics must be noted in the Chemical Composition section.
- Pictures and/or schematics are helpful for unusual wastestreams. Occasionally, AERC may request a sample for testing.
- Original signatures are required, in accordance with our Hazardous Waste Recycling Permit.
- Return the signed and dated profile to your Account Representative.
- An approval letter will be generated and sent to you with a copy of the profile when your wastestream is approved.
- The AERC recycling profile number will be used as the AERC Approval Code for all shipments of the waste described on the profile.
- The AERC Approval Code will be in effect for a period of one year.
- On occasion, AERC will grant a "one time only" approval for specific quantities or types of waste. This information will be detailed on your approval letter.
- A new profile is required to be completed if the chemical or physical characteristics of your waste change in any way during the approval period.
- The AERC Approval Code must be indicated on each outer shipping container and the accompanying packing slip.

## **SHIPPING AND PACKAGING SAMPLES**

- Samples should be shipped on a bill of lading, with notation “Sample only for evaluation”. Do not manifest.
- Package samples in accordance to US DOT Hazardous Material (49CFR) specifications.
- Enclose the original profile (or a copy if the original has already been submitted) with the sample.
- Ship the container to AERC Attn: Doris L. Farley.

## **SHIPPING AND SCHEDULING WASTES TO THE FACILITY**

- Contact AERC two weeks prior to the desired shipping date.
- Submit a load breakdown to AERC (seven days in advance) including: number of containers and container size per approval code (per material) and indicate the desired delivery date.
- A copy of all shipping documents must be faxed to the AERC scheduling department for preapproval. Loads will not be scheduled if paperwork is not received and approved.
- Submit container summary sheets for all lab pack containers.
- Schedule your shipment with AERC personnel, assign a P.O. #, and receive a Work Order Number.
- Indicate the Work Order Number in Section 15 of the manifest.
- Indicate the AERC Approval Code either on the line item or in Section 15 of the manifest.
- Indicate the approval code for each wastestream on the outside of each container.
- Attach a container summary sheet to the outside of all lab packed containers.

## QUALITY CONTROL PROCEDURES

- Each outer container will be inspected for an AERC Approval Code (AERC PA requirement).
- Sampling and analyses will be conducted according to AERC's Waste Analysis Plan.
- AERC will work to resolve and discrepancies determined through QC sampling and analysis. It is AERC's goal to not reject any wastestreams back to the generator. If, however, a discrepancy cannot be resolved, the generator will have the option of rejection or redirection to an approved RCRA treatment or recycling facility.
- Lab pack wastes require packing list review approval prior to acceptance. Lists should be received by the AERC Approvals Department seven (7) days prior to shipment.

## CASE-BY-CASE APPROVALS

- A wide variety of other wastestreams can be approved and recycled at AERC on a case-by-case basis. Please contact the AERC Approvals Department to answer any questions you may have about special wastestreams.
- Wastestreams currently approved on a case-by-case basis include:
  - Organic mercury compounds and solutions
  - Mercury cyanides
  - Mercury-contaminated sludge
  - Precious metals
- AERC will evaluate your wastestream based on volume, chemical characteristics, frequency of generation/shipment, packaging and regulatory requirements. We will always strive to meet all of your mercury recycling needs.